

REMARKS

This Amendment and Response is submitted in reply to the Office Action dated May 1, 2007, in which the Examiner:

rejected claims 1-7 and 13-14 under 35 U.S.C. § 102(b) as anticipated by DE 19520912 (DE '912);

rejected claims 9 and 12 under 35 U.S.C. § 102(b) as anticipated by DE 10112725 (DE '725);

rejected claim 8 under 35 U.S.C. § 103(a) as unpatentable over DE 4331102 (DE '102);

rejected claim 10 under 35 U.S.C. § 103(a) as unpatentable over DE '725; and

rejected claim 11 under 35 U.S.C. § 103(a) as unpatentable over DE '912, either alone or in view of DE 19748997 (DE '997).

Applicants respectfully traverse the rejections below. Claims 1-14 are currently pending. The current Amendment amends claims 1, 4, 8 and 9, and adds new claims 15-17, leaving claims 1-17 pending upon entrance of the current Amendment. Claims 1, 9 and 16 are independent claims.

Applicants thank the Examiner for the telephone interview regarding Applicants' proposed Amendments to claims 1 and 9 to overcome the current rejections of claims 1 and 9. In the telephone interview, no agreement was reached regarding claim amendments that would overcome the current rejections of claims 1 and 9.

Following the telephone interview, the Examiner faxed Applicants' Representative official U.S. Patent Office translations of the cited foreign references DE '912, DE '725 and DE '102. Citations to those references in this Response are made relative to these official translations.

Claim 1 was rejected under 35 U.S.C. § 102(b) as anticipated by DE '912. An anticipation rejection under § 102 is improper unless a single prior art reference shows or discloses each and every claim recitation. Applicants' amended claim 1 recites, in part, a water purification device comprising a

diaphragm unit having a diaphragm, which separates a primary side from a secondary side, wherein the primary side is connected with a pressure control device, which controls the pressure on the primary side in dependence on the pressure on the secondary side, wherein the pressure control device includes a control valve, which is connected to the diaphragm unit, wherein the control valve has a valve element, the valve element being acted upon by the pressure on the primary side in either an opening or a closing direction, and by the pressure on the secondary side in the other of the opening or the closing direction, and wherein a signal line extends between the valve element and the primary side, the pressure on the primary side being communicated to the valve element through the signal line.

DE '912 does not show or disclose each and every claim 1 recitation. For instance, DE '912 does not show or disclose a pressure control device including a control valve having a valve element, wherein a signal line extends between the valve element and the primary side, the pressure on the primary side being communicated to the valve element through the signal line. Instead, DE '912 appears to show that an element 43 of valve 40 is acted upon in one direction by pure water flowing through permeate line 15, and in the other direction by unfiltered water containing concentrated impurities in the conduit 16 via channel 52. (See, e.g., DE '912, Figure 3.) Neither permeate line 15 nor channel 52 is a signal line extending between the primary side and the valve element of a control valve.

Thus, DE '912 does not show or disclose each and every recitation of Applicants' amended claim 1. Accordingly, Applicants respectfully submit that the rejection of claim 1 under 35 U.S.C. § 102(b) as anticipated by DE '912 is improper for at least this reason, and should be withdrawn.

Claims 2-7 and 13-14 were also rejected under 35 U.S.C. § 102(b) as anticipated by DE '912. These claims all depend, directly or indirectly, from Applicants' claim 1, and include additional recitations thereto. Accordingly, Applicants respectfully submit that the rejection of claims 2-7 and 13-14 under 35 U.S.C. § 102(b) as anticipated by DE '912 is improper for at least the reasons stated in connection with claim 1, and should be withdrawn.

Claim 9 was rejected under 35 U.S.C. § 102(b) as anticipated by DE '725. Applicants' amended claim 9 recites, in part, a water purification device comprising a diaphragm unit having a diaphragm, which separates a primary side from a secondary side, wherein a pressure control device controls the operating pressure on the primary side in dependence of the quality of the water to be purified.

DE '725 does not show or disclose each and every recitation of Applicants' claim 9. For instance, DE '997 does not show or disclose that a pressure control device controls the pressure on the primary side in dependence of the quality of the water to be purified. Instead, DE '725 discloses:

The pressure at the outlet of the pump 16 is regulated as a function of those values that are acquired by the third pressure sensor 6, the second watermeter 22, the conductance sensor 23, and the fourth pressure sensor 24. (Translation of DE '725, paragraph [0021].)

None of these sensors or meters even measure the quality of water *to be* purified. For example, the conductance sensor 23 is arranged downstream of the outlets of reverse osmosis modules 10 and 11 and, thus, measures the conductance of diluate (water that *has already been* purified). Therefore, DE '725 does not show or disclose a pressure control device that controls pressure on the primary side in dependent of the quality of water to be purified, as the current claim 9 recites.

Regarding the hardness grade monitoring device 1, DE '725 does not show or disclose that "[t]he pressure at the outlet of the pump 16 is regulated as a function of..." a value acquired by the hardness grade monitoring device 1. Instead, DE '725 discloses that the further supply of raw water is stopped and the reverse osmosis system is "turned off automatically" if a predetermined water hardness threshold is exceeded. (See Translation of DE '725, paragraph [0020].) If the reverse osmosis system is "turned off," the pressure at the outlet of the pump is no longer being regulated or controlled, at all, and any residual pressure that may exist at the outlet of the pump is, by definition, not an "operating" pressure.

Thus, DE '725 does not show or disclose each and every recitation of Applicants' amended claim 9. Accordingly, Applicants respectfully submit that the rejection of claim 9 under 35 U.S.C. § 102(b) as anticipated by DE '725 is improper for at least this reason, and should be withdrawn.

Claim 12 was also rejected under 35 U.S.C. § 102(b) as anticipated by DE '725. Claim 12 depends directly from claim 9 and includes additional recitations thereto. Accordingly, Applicants respectfully submit that the rejection of claim 12 under 35 U.S.C. § 102(b) as anticipated by DE '725 is improper for at least the same reasons stated in connection with claim 9, and should be withdrawn.

Claim 8 was rejected under 35 U.S.C. § 103(a) as unpatentable over DE '102. A claim rejection under 35 U.S.C. § 103(a) is improper unless the Examiner establishes a prima facie case of obviousness. A prima facie case of obviousness requires that prior art references, alone or in combination, teaches or suggests each and every claim recitation. Applicants' claim 8 has been amended to depend from Applicants' amended claim 1.

DE '102 does not teach or suggest each and every claim 1 recitation. For example, DE '102 does not teach or suggest a pressure control device including a control valve having a valve element, wherein a signal line extends between the valve element and the primary side, the pressure on the primary side being communicated to the valve element through the signal line.

Thus, Applicants' claim 1 is not prima facie obvious over DE '102. Accordingly, Applicants respectfully submit that the rejection of dependent claim 8 under 35 U.S.C. § 103(a) as unpatentable over DE '102 is improper for at least this reason, and should be withdrawn.

Claim 10 was rejected under 35 U.S.C. § 103(a) as unpatentable over DE '725. Applicants' claim 10 depends directly from claim 9, and includes additional recitations thereto. DE '725 does not teach or suggest each and every recitation of Applicants' claim 9. For instance, DE '725 does not teach or suggest that a pressure control device controls the operating pressure on the primary side in dependence of the quality of the water to be purified.

Additionally, claim 10 further recites that the pressure control device sets a pressure difference across the diaphragm with drinking water in the range from 3 to 7 bar, with impurified water in the range from 7 to 30 bar and with saltwater in the range from 30 to 80 bar. As noted in connection with claim 9, DE '725 teaches simply shutting of the raw water supply and shutting its reverse

osmosis system down if hardness exceeds a given threshold. Thus, DE '725 certainly does not teach or suggest *continuing* operation, while adjusting a pressure difference across its reverse osmosis units 10, 11.

Thus, DE '725 does not teach or suggest each and every recitation of Applicants' claim 9, or the additional recitations of claim 10. Accordingly, Applicants respectfully submit that the rejection of dependent claim 10 under 35 U.S.C. § 103(a) as unpatentable over DE '997 is improper for at least this reason, and should be withdrawn.

Claim 11 was rejected under 35 U.S.C. § 103(a) as unpatentable over DE '912, either alone or in view of DE '997. Applicants' claim 11 depends directly from claim 1 and includes additional recitations thereto.

DE '912 does not teach or suggest each and every recitation of Applicants' claim 1. For instance, DE '912 does not teach or suggest a pressure control device including a control valve having a valve element, wherein a signal line extends between the valve element and the primary side, the pressure on the primary side being communicated to the valve element through the signal line.

DE '997 does not add to the teachings of DE '912 at least in that DE '997 also does not teach or suggest a pressure control device including a control valve having a valve element, wherein a signal line extends between the valve element and the primary side, the pressure on the primary side being communicated to the valve element through the signal line.

Thus, neither DE '912 nor DE '997, nor the combination thereof, teaches or suggests each and every recitation of Applicants' claim 1. Accordingly, Applicants respectfully submit that the rejection of dependent claim 11 under 35 U.S.C. § 103(a) as unpatentable over DE '912, either alone or in view of DE '997, is improper for at least this reason, and should be withdrawn.

Having traversed each and every claim rejection, Applicants respectfully request that the rejections of claims 1-14 be withdrawn, and claims 1-17 be passed to issue.

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Response to Office Action dated: August 14, 2007

Applicants respectfully submit that the amendments to the claims are fully supported by the original disclosure of the current application, and that nothing in the current Amendment constitutes new matter.

Applicant hereby petitions for a one-month extension of time in order to file a Response to Office Action in the above-identified application. Please charge the fee of \$120.00 required under 37 CFR 1.17(a) to Deposit Account No. 13-0235.

Applicant believes no additional fees are due in connection with this Amendment and Response, beyond those already submitted. If any additional fees are deemed necessary, authorization is granted to charge any such fees to Deposit Account No. 13-0235.

Respectfully submitted,

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